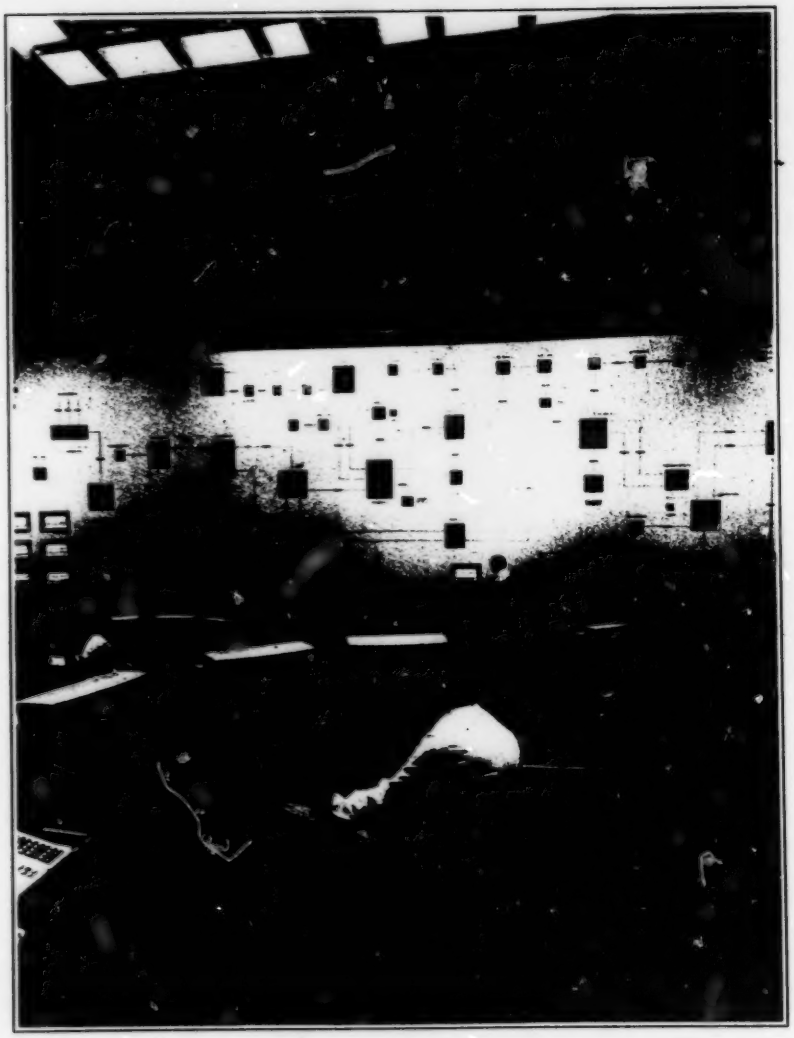
HYDRO



NEWFOUNDLAND AND LABRADOR HYDRO
1990 ANNUAL REPORT

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System Map
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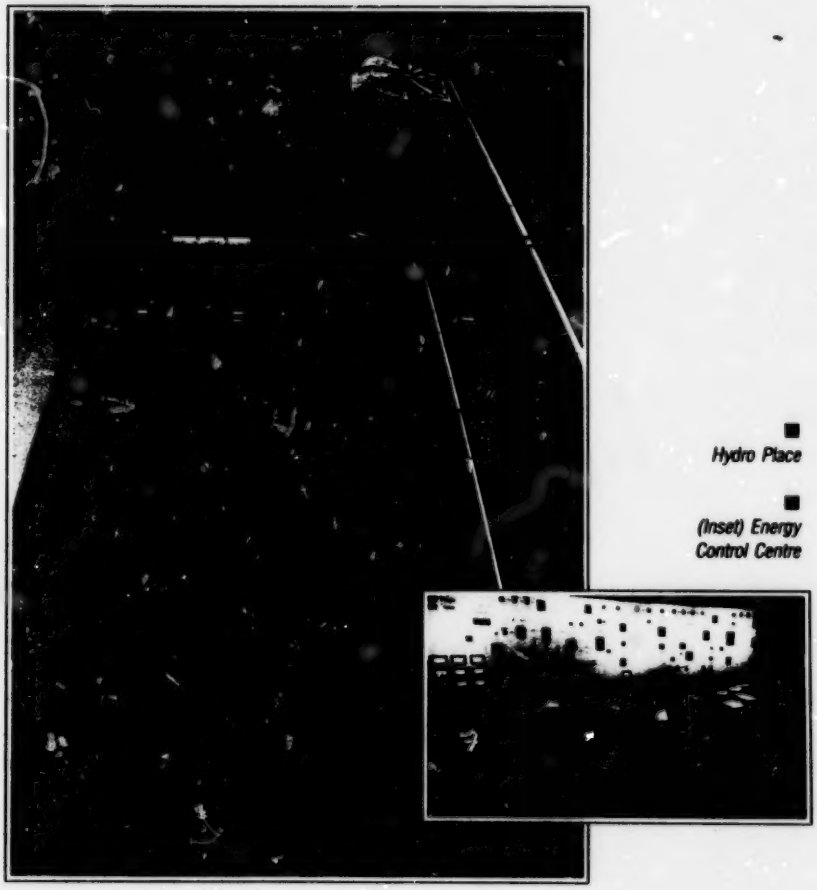
Cover photo: A mapboard measuring approximately 16 metres by 4.5 metres dominates the new Energy Control Centre in St. John's. Bill Collier, System Coordinator (foreground) and Darrell Reid, System Operator (left) monitor the power system while System Coordinator Barry Taylor checks data from the frequency recorder.

Highlights

- Official opening of Hydro Place in St. John's
- Completion of the Energy Control Centre at Hydro Place
- Integration of the Power Distribution District with Hydro
- $78.5 million in construction activity, including:
  - Construction of three, 138-kV transmission lines
  - Upgrades to Hydro and CF(L)Co facilities
  - Improvements to generating plants on coastal Labrador
  - Start of construction on a 25,000-kilowatt gas turbine in Happy Valley-Goose Bay
- New system peak record on the Island: **1,316,000 kilowatts**
- Net income: **$21.7 million**
- Debt/equity ratio at year end: **84:16**



■ *Hydro Place*

■ *(Inset) Energy Control Centre*

Foreword

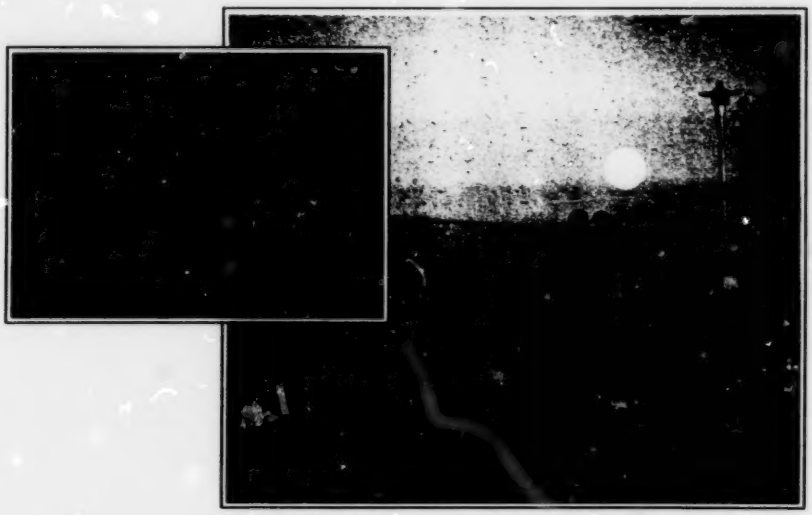
Newfoundland and Labrador Hydro (Hydro) is the parent company of the Hydro Group of Companies, comprising Hydro, Churchill Falls (Labrador) Corporation Limited (CF(L)Co), Lower Churchill Development Corporation Limited (LCDC), Gull Island Power Company Limited (GIPCo) and Twin Falls Power Corporation Limited (TWINCo).

This annual report is a consolidated review of Hydro and CF(L)Co operations during 1990. Financial statements for CF(L)Co, LCDC and TWINCo are published separately.

By virtue of its controlling interest in CF(L)Co, Hydro is the fourth largest utility in Canada in terms of installed generating capacity: the massive underground powerhouse at Churchill Falls is rated at over 5.4 million kilowatts.

While Hydro is principally a wholesaler of electricity and sells the bulk of its power to an investor-owned utility and several industrial customers, the Corporation does sell directly to nearly 30,000 customers living in rural and isolated communities in Newfoundland and Labrador who are not serviced by the retail utility.

A system map pinpointing Hydro generating stations is found on the inside back cover of this report.



■ *Hydro maintains a strong commitment to provide safe and reliable electrical service to the residents of Newfoundland and Labrador.*

■ *(Inset) Conductors leaving the cable shaft at Churchill Falls.*

Newfoundland and Labrador Hydro

Energy Production

Hydro relies heavily on the abundant water resources in Newfoundland in order to produce electricity. Low reservoir levels in the first half of 1990, however, and a need to build up storages, resulted in another year of decreased hydraulic production.

Reservoir levels recovered to 74% of full supply levels by year end, compared to 41% at the same time in 1989. The gross energy generated from hydroelectric sources during 1990 totalled 3,771 million kilowatt hours, a 0.7% reduction from the previous year.

Overall, Hydro's gross energy production on the Island interconnected system was down 3.4% from 1989, to 5,735 million kilowatt hours, primarily due to the shutdown of the Albright and Wilson phosphorous operation.

Abnormally cold temperatures and high winds on the Island during early February precipitated a new system production peak on February 3, 1990. The new record of 1,316,000 kilowatts exceeds the previous peak reached in 1988 by 86,000 kilowatts. On the same day, Hydro set another new record by delivering 27.5 million kilowatt hours of energy across the Island during a 24-hour period.

Energy Sales

Energy sales to Island interconnected customers dropped by 3.9% in 1990, primarily due to the shutdown of the Albright and Wilson phosphorous plant at Long Harbour. This facility had consumed over 10% of Hydro's annual energy output for the last several years.

One of the early mandates of Hydro was the supply of electrical power to rural areas in the Province. The Board of Trustees of the Power Distribution District of Newfoundland and Labrador (PDD) managed this goal; Hydro in turn managed PDD. This organization was fully integrated with Hydro in January 1990 following a Government decision to phase out a subsidy formerly paid to help cover the high cost of providing electricity to the rural areas.

The nearly 30,000 customers previously serviced by PDD are now Hydro rural customers. Of these, approximately 72% receive electricity supplied from the interconnected grid. Others, in isolated areas on the Island and in Labrador, receive power from more costly to operate diesel generating units.

Sales to approximately 21,000 rural interconnected customers on the Island and in Labrador amounted to 471.1 million kilowatt hours in 1990, representing a 5.4% increase over 1989. Sales of 83.3 million kilowatt hours to another 8,000 customers, who receive electricity from the isolated diesel systems, fell somewhat as compared to the previous 12-month period. The decrease of 0.36% resulted from the interconnection of Fogo with the Island transmission grid in early 1989.

Figure A
GROSS SYSTEM GENERATION AND ENERGY PURCHASES

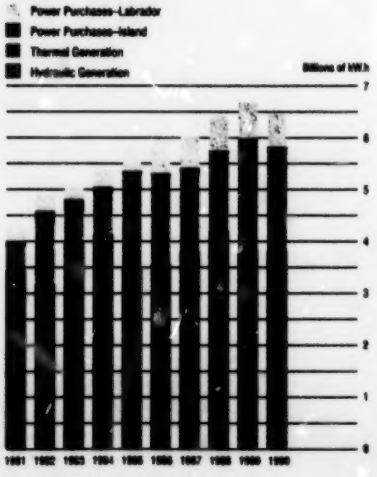


Figure B
GROSS GENERATING CAPACITY AND DEMAND

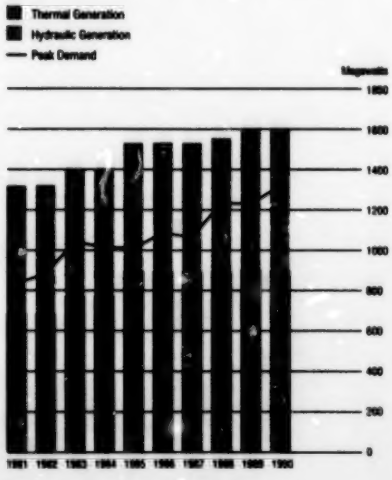
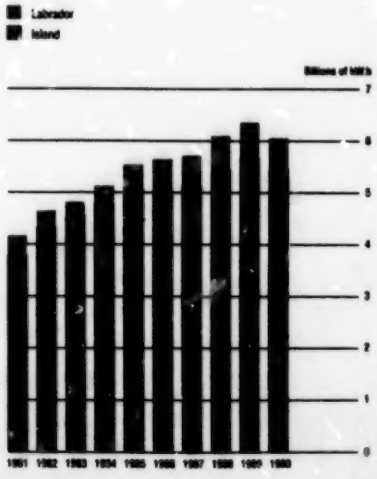


Figure C
ENERGY SALES



System Improvements

Hydro is a major force in the provincial economy. Generating the bulk of the electricity supplying local businesses, Hydro also creates much-needed construction employment with its substantial capital programs. In 1990, Hydro spent approximately $75.0 million on capital improvements in order to meet the increasing electrical requirements of the residents of Newfoundland and Labrador, as well as to improve existing service.

Hydro Place: The new Corporate head office officially opened on September 21, 1990. Centralizing personnel previously based at a number of locations, the building serves to improve internal communications and to provide a modern, efficient work area.

Energy Control Centre: The state-of-the-art Energy Control Centre (ECC), completed ahead of schedule and under budget at a final overall cost of approximately $16 million, began operation on August 23, 1990.

Housed in Hydro Place, the ECC features a sophisticated Energy Management System that greatly improves the security of the electrical system.

The ECC remotely controls and monitors all of Hydro's generating and terminal stations on the interconnected Island system. With the replacement of the Churchill Falls computer control system, the ECC will also receive data from the Churchill Falls plant and the Wabush terminal station in Labrador.

A training area for ECC operators doubles as a viewing gallery to provide visitors with an impressive insight into the scope of Hydro's operations.

Maintenance and expansion of generation facilities: To meet growing demand, generating capability will increase in Happy Valley-Goose Bay with the installation of a 25,000-kilowatt gas turbine. This unit will serve as a source of emergency power for the area. When required, the gas turbine will also act as a synchronous condenser in order to bring more power across the existing 138-kilovolt transmission line from Churchill Falls. Scheduled for completion in early 1992 at an estimated cost of $26.5 million, the

George Lundrigan, Superintendent of Construction (left) and Rami Wadhwa, Civil Design Engineer, discuss terminal station drawings.

(Inset) Lineworkers Kenny Lush (top) and Chesley Roberts (bottom) repair porcelain insulators on a 230-kilovolt steel structure.

project is well under way. The building to house the unit was completed by the end of 1990; installation of the turbine will proceed during 1991.

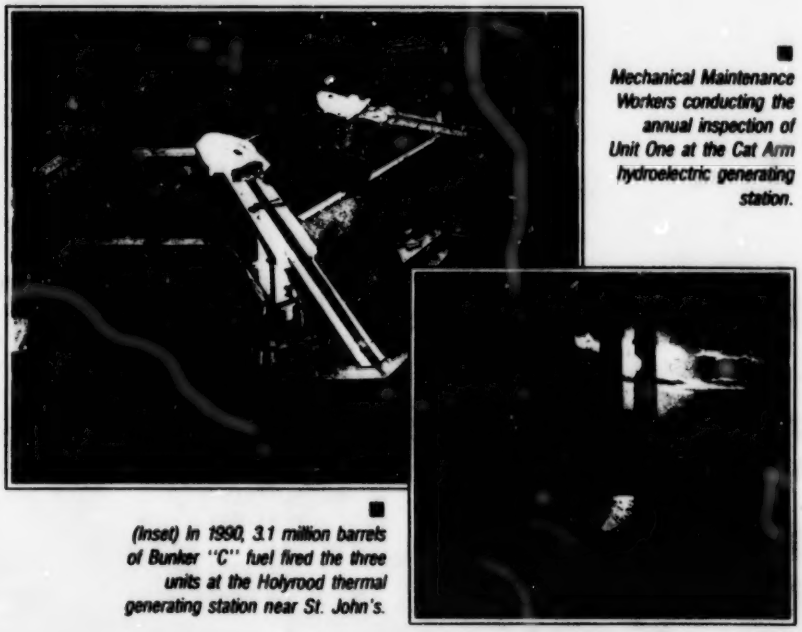
The Holyrood thermal generating station plays an important role in meeting the needs of domestic and industrial customers. In 1990 and 1991, a $1.8 million upgrading project on the boiler combustion air heating systems will increase the availability of generating Units One and Two as well as reduce maintenance requirements. Work on Unit One was completed during 1990; Unit two will be completed in 1991.

Additional major maintenance to other Hydro thermal generating stations further improved system reliability. In the case of two of Hydro's gas turbine stations, for example, corrosion and normal deterioration of the exhaust stacks called for maintenance work. The installation of new stacks at the Stephenville station accounted for considerable cost savings when two stacks were installed on a consecutive basis rather than over a two-year period. At the Hardwoods gas turbine, corrosion on the exhaust stacks was less severe than that at Stephenville. Consequently, the structures were dismantled to allow replacement of defective sections only, thereby avoiding the necessity of installing entirely new stacks. Work was completed on one stack in 1990; the second will be finished in 1991.

Hydro continues its commitment to customers in remote areas of the Province. On the rural isolated Labrador system, Hydro expanded generation capacity in the community of Makkovik from 450 kilowatts to 1125 kilowatts and increased the fuel storage capacity in the area. At Davis Inlet, Labrador, a new powerhouse, together with an associated substation, was constructed. In Mary's Harbour, William's Harbour, St. Anthony, Grey River, Little Bay Islands and South East Bight, fuel system upgrades further increased rural generation reliability. The combined cost of these improvements amounted to approximately $2.7 million.

Watershed management is of paramount importance in the supply of hydroelectricity. Engineering design work neared completion in 1990 for the final two stages in a flood handling program at Bay D'Espoir; construction is scheduled for 1991. The first stage of the $1.5 million project involves building an erodible plug between Burnt Dam and Burnt Sidehill canal dyke. Under extreme flood conditions, the plug will erode and thus allow an increased volume of water to be released from the Burnt Pond Reservoir. Construction of low dykes near the Victoria control structure and gate modifications at the Victoria spillway will comprise the second stage of the project.

Annually, a great deal of preventative maintenance work ensures that generating units, auxiliary equipment and associated structures are in top condition. Two major accomplishments of this nature



■ *Mechanical Maintenance Workers conducting the annual inspection of Unit One at the Cat Arm hydroelectric generating station.*

■ *(Inset) In 1990, 3.1 million barrels of Bunker "C" fuel fired the three units at the Holyrood thermal generating station near St. John's.*

in 1990 were the rehabilitation of surge tank Number Two at the Bay D'Espoir generating station and a detailed inspection of the Cat Arm power tunnel.

The surge tanks at Bay D'Espoir are among the tallest such structures in the world. During 1990, Hydro achieved considerable cost-savings by carrying out repair work to a damaged section of surge tank Number Two. As a result of the 110-metre heights involved and to ensure the safety of workers, an aerial platform was custom-designed to carry out the work. In addition to repairing and coating the interior of the steel riser, which connects the penstock to the surge tank, a cathodic protection system was installed to minimize future corrosion.

At 386 metres, the gross head of the Cat Arm power tunnel makes it the third highest of its kind in Canada. For the first time since commissioning five years ago, the tunnel was dewatered in 1990 to allow visual inspection of the structure. It was found to be in excellent condition; another inspection is therefore unlikely to be required before the year 2000.

Consideration of the environment remains integral to Hydro's operations. In 1990, the last field studies to monitor the fish and ecology at the Cat Arm reservoir concluded. This project began in 1980 and should be finalized in 1991.

Also during the year, the Department of Fisheries and Oceans (DFO) issued an advisory that elevated levels of mercury had been found in certain fish species in Hydro's reservoirs on the Island. No commercial fishing or native food fishery takes place in these reservoirs. DFO and Hydro will continue to monitor the mercury levels.

At the Holyrood generating station, initial studies and design work began on upgrading liquid waste treatment facilities. With construction scheduled for early 1991, an estimated $4.3 million will be spent on the project.

Improvements and expansion to the transmission system: For a combined cost of $38 million, construction of three new 138-kilovolt transmission lines highlighted the 1990 construction period.

On the Great Northern Peninsula, environmental concerns were of prime importance as Hydro began work in early January rather than at the start of the traditional construction season. In order to build an 86-kilometre length of 138-kilovolt transmission line from Berry Hill to Peter's Barren, environmental impacts to the bog area in and around the Gros Morne National Park had to be minimized. During the winter months the normally spongy bog was frozen and permitted successful placement of poles prior to the spring thaw. The project, substantially completed by year end, included erection of a new terminal station at Peter's Barren and extensions to the existing Berry Hill terminal station. An accumulated total of $16.5 million had been spent by year end.

Expenditure of an additional $14.5 million over two years enabled construction of the 156-kilometre, 138-kilovolt transmission line between the Sunnyside, Trinity Bay and Salt Pond, Burin Peninsula terminal stations. The line went into service in late 1990.

A 35-kilometre extension to a portion of the 138-kilovolt transmission system on the Baie Verte Peninsula was completed in 1990 at a cost of $7 million. The new line runs from Seal Cove to Bottom Waters.

Past incidents of severe icing on the 230-kilovolt transmission line between Buchans and Massey Drive near Corner Brook prompted a significant $8 million upgrading program over two years. Hydro realized the first phase of this plan in 1990 upon completion of the eastern section of the line; the western half will be finished in 1991.

Design work began on upgrading the section of 230-kilovolt transmission line between the Western Avalon and Oxen Pond terminal stations. This line has also been afflicted by severe ice buildup in the winter months; the work is scheduled for completion in 1991 for an accumulated project cost of $3.8 million.

Modifications to terminal stations and to protection and control equipment throughout the system, combined with grounding improvements on the 230-kilovolt lines, will significantly reduce the risk of outages. Of particular note is the work at the Bay D'Espoir switchyard, which totalled $4.2 million by year end and which, when completed, will significantly improve the security of electrical energy supply from the Bay D'Espoir generating station. Additional improvements to the switchyard will continue into the next two years.

As well, $2.5 million in construction costs at the Holyrood terminal station will greatly improve station service reliability at Holyrood.

Improvements to internal communications: The centralizing of personnel in Hydro Place enables ease of communications from one department to the other at the head office level.

The Energy Control Centre ensures quick and reliable reporting of generation and transmission activities.

The commissioning of a new VHF mobile radio system, at a cost of $3.7 million, improves communications between the regional offices and trouble-shooting crews. This system eliminates the congestion and frequency interference problems associated with the previous communications system. Twenty-eight repeater sites, located at strategic locations across the Island, link approximately 500 mobile and portable radios, base stations and pagers to allow for more efficient message relaying.

Rates

In mid-1989, the Provincial Government announced a three-year phaseout of an annual subsidy formerly paid to Hydro for the distribution of electricity in rural areas. Additionally, Government imposed a 1% guarantee fee on Hydro's long-term outstanding debt. The subsidy, had it remained in effect, would have amounted to approximately $32 million in 1990; the guarantee fee amounts to approximately $10 million per year.

As a result of these measures, Hydro filed an application with the Public Utilities Board (PUB) in February 1990 for an increase in the rate charged to its retail customer. This increase was for each of the years 1990, 1991 and 1992.

Effective July 1, 1990 the PUB approved an 8% increase in Hydro's retail rate, representing approval of one of the three test years as filed with the PUB. The Hydro Board of Directors approved an increase of approximately 9% to industrial customers, as of January 1, 1990.

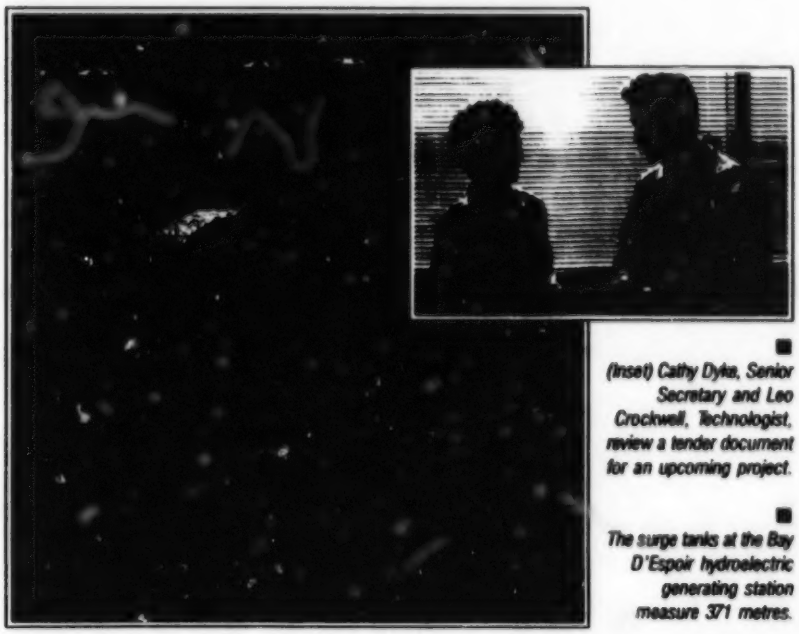
The Rate Stabilization Plan annually absorbs variations in fuel prices, hydraulic production and load, with rate adjustments amortizing the balance in the Plan over three years. In 1990, this Plan resulted in a rate reduction of 1.30 mills per kilowatt hour for Hydro's retail customer and a 0.24 mill per kilowatt hour increase for industrial customers.

Working at Hydro

The Hydro Group is one of the largest employers in Newfoundland and Labrador, with a year end staff complement of 1,261 persons.

"Safety is a way of life" stands as the official safety slogan for the Group. The personnel of the diesel generation group in the Labrador Region bear witness to that slogan. On December 27, 1990, they attained a significant milestone by recording one million employee hours without a lost-time accident, over a 13-year period.

During 1990, Hydro employees continued to make steady progress with the Corporate Loss Control Program. Six of the audit areas throughout the Province have achieved a 3-star level of performance under the International Safety Rating System advanced program. Four other areas are at a 2-star level of performance.



(Inset) Cathy Dyke, Senior Secretary and Leo Crockwell, Technologist, review a tender document for an upcoming project.

The surge tanks at the Bay D'Espoir hydroelectric generating station measure 371 metres.

Full implementation of a smoke-free working environment by January 1, 1990 meant that all Hydro offices throughout the province had banned smoking. A smoking cessation program assisted employees adjust to this new policy.

To ensure internal equity and external competitiveness, Hydro conducted a major review of all non-union positions, with the assistance of an outside consulting group. A detailed and comprehensive evaluation program came into effect July 1, 1990.

Hydro offers an attractive benefit package for all employees. To promote awareness of the program, Hydro held informative communication sessions at all regional offices throughout the spring of 1990.

The opening of Hydro Place in St. John's marked a first in the history of the Corporation in terms of additional services available to employees: on-site day care and fitness facilities.

Run by an independent operator, the day care provides service for pre-school children aged two years or older. Twenty children of Hydro Place employees were enrolled in the program by year end.

Open for use before work, at lunch periods and after the working day, the fitness centre has proven popular with many employees. Aerobics classes, led by a certified instructor, are available at a nominal charge and modern fitness equipment complements a walking trail around the 5.6-hectare Hydro Place site.

Hydro Place employees are actively participating in efforts to improve the environment. Sorting and recyling office paper started shortly after the move to the new building. One of the first organizations in the province to conduct such a program, Hydro's initiative motivated numerous enquiries from other companies and government agencies wishing to implement a similar program.

At the Holyrood thermal generating station, plant ventilation improvements, estimated at $3.2 million, will improve operating conditions for employees while at the same time rectify a number of chronic technical difficulties associated with the present ventilation system. Design work begins in 1991 on this project to increase the flow of fresh air through the building; equipment installation is scheduled for 1992.

Office automation remains a priority for the Hydro group: 1990 saw a number of accomplishments in this regard. At several regional offices, Hydro installed a software program to improve system equipment maintenance activities. The installation of an additional mainframe computer at Hydro Place benefited the entire Corporation by providing faster access to larger amounts of information. Computer networks, to allow for more efficient use of software and printers, were designed and installed in the larger regional offices as well as at Hydro Place.

Towards the future

Planning ahead to project the future energy requirements for the province is an ongoing process at Hydro. The fine science of balancing anticipated needs with the appropriate generation sources takes many factors into account to ensure Hydro determines the most economic means to provide reliable service at the lowest possible cost. Further, personnel at Hydro continually examine the existing system to ensure reliability and safety are maintained at the highest possible levels.

Talks with Hydro-Québec continued in a favourable vein concerning development of the Lower Churchill River in Labrador. The two sites at Gull Island and Muskrat Falls have a projected capacity of approximately 3100 megawatts and an annual output of nearly 17 billion kilowatt hours of electrical energy. A high voltage direct current transmission line, with a submarine cable crossing the Strait of Belle Isle, would carry power from Labrador to the Island transmission grid; capacity and energy surplus to the needs of Newfoundland would be sold to Hydro-Québec under a long-term contract. It is hoped that an agreement on this project, estimated to cost approximately $10 billion and to entail a 10-year construction period, will be reached in the near future.

In anticipation of the successful resolution of these discussions, Hydro registered this proposed development, and the associated transmission facilities, with the provincial department of Environment and Lands, as required under The Environmental Assessment Act. Hydro also submitted the pertinent information for screening under the federal Environmental Assessment and Review Process. Further to the provincial registration, Government required Hydro to undertake a full Environmental Impact Statement for which it is hoped final approval will be received by early 1994.

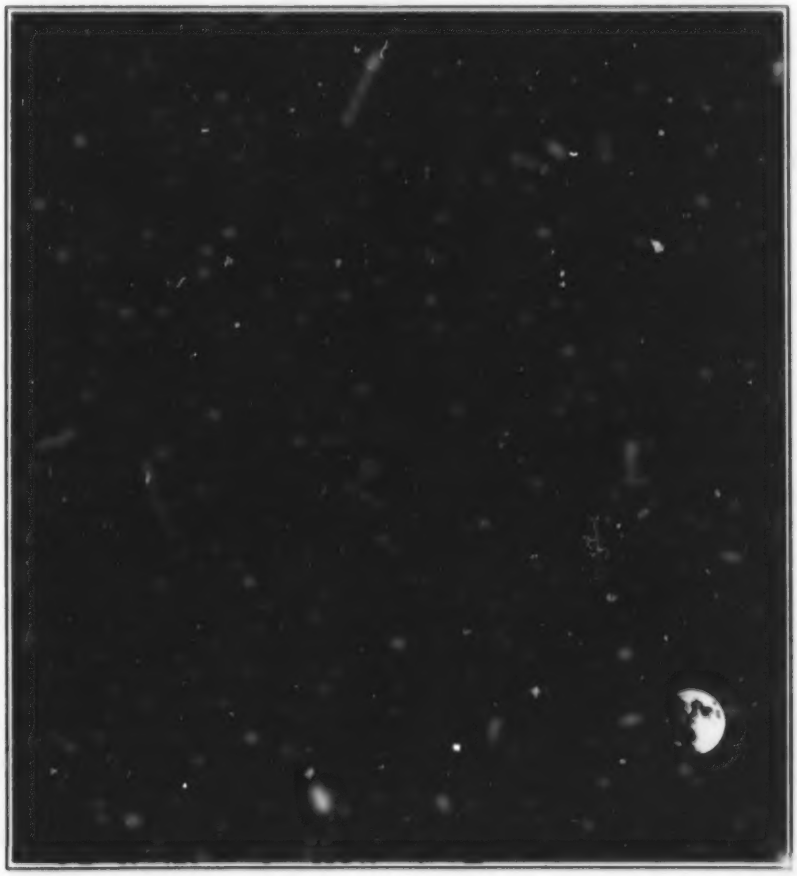
In 1990, Hydro announced a new direction in policy concerning development of "mini-hydro" sites. On any appropriate hydro project of 10,000 kilowatts or less, at a 60%

capacity factor, Newfoundland and Labrador Hydro may relinquish its water franchise to private developers and be prepared to purchase the resulting energy. The purchase would be on a long-term contractual basis, providing the cost does not exceed Hydro's own alternatives. The pricing formula would be determined on a project-by-project basis.

A new source of generation on the Island, however, will be required by 1996 in order to meet the growing load demand. In response to this need, Hydro is currently assessing all available options. One of these is the installation of a fourth generating unit at the Holyrood thermal generating station near St. John's, while another option would be the development of relatively small hydraulic sites. The most appropriate alternative will likely be selected during 1991. In anticipation of this, the necessary environmental assessment work is currently in progress.

Modifications and improvements to the existing power system will further sustain growth. In 1991, grounding improvements to a number of transmission lines will continue. Transformer additions to the Holyrood and Hardwoods generating stations will be carried out. The project to modify the terminal station at Bay D'Espoir will also provide for greater reliability of service throughout the system.

Overall, Hydro is in a sound position to meet the electrical energy needs of the provincial economy as we enter the new decade.



Churchill Falls (Labrador) Corporation Limited

Energy: Production and Sales

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The Churchill Falls hydroelectric generation station is the largest underground power facility in the Western world.

During 1990 a total of 29.3 billion kilowatt hours were produced representing an increase of approximately 6% from the previous year but 18% below the long-term average. The annual precipitation was 3% above average for the year; however because of water table recharging this slightly above average precipitation resulted in the seventh consecutive year in which inflows into the reservoir were below the long-term average (89% of average).

The year commenced with the reservoir storage at 43% capacity and decreased to a low of 3% in April. It increased to 50% capacity in November and was at 45% storage at the end of the year.

Energy deliveries to Hydro-Québec amounted to 26.1 billion kilowatt hours, an increase of approximately 7% over the previous year. The total deliveries to Labrador customers amounted to 2.5 billion kilowatt hours, representing a reduction of 3.8% from 1989. This reduction resulted from a reduced demand by industrial customers in the area.

Total revenue in 1990 increased by approximately $3.5 million over the previous year while net income rose by $8.8 million.

Plant Operations

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The overall plant availability for the year stood at 86.8% with a plant operating factor at 70.8% of capacity. Annually, CF(L)Co conducts inspections on the power generating equipment: in 1990, these were all successfully completed. As well, 99% of all preventative maintenance assignments on the power facilities were completed for the year, comparing favourably to the eight year average of 94%.

Maintenance Activities

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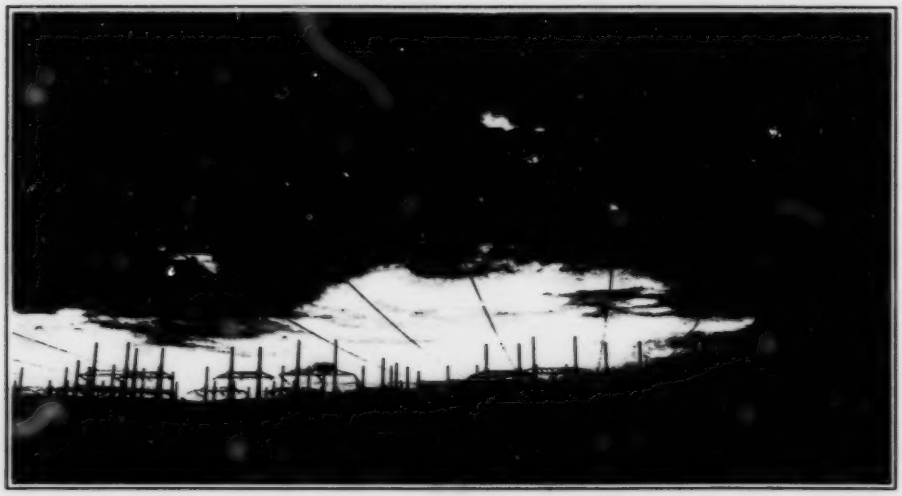
Gate Number 3 of the Whitefish Control Structure was unwatered for the first time since it became operational in 1971. An intensive inspection showed the concrete works and associated equipment to be in good condition and minimal remedial maintenance was undertaken and completed prior to winter.

Extensive repairs were required on several transformers during 1990. The 230/735-kilovolt autotransformer, shipped to Sweden for repairs in the latter part of 1989, was returned to the Churchill Falls site during the month of August. The unit has been operating satisfactorily since installation last October.

Two other transformers are currently in Ontario for repair. Following a bushing failure and subsequent fire in another 230/735-kilovolt autotransformer in June 1990, the unit was shipped to a plant in Guelph for refurbishment. The schedule for repairs was not finalized by year end.



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The switchyard at Churchill Falls

Early in the year, an apparent fault in the core of a 15/230-kilovolt step-up transformer on generating Unit Number 2 prompted removal of the unit from service and shipment to Hamilton for repairs. It is expected that repairs to the transformer will be completed by March 1991.

The annual inspection of dykes and other hydraulic structures, conducted by the Dyke Board of Consultants, did not reveal any major concerns.

Despite a slight increase in the number of accidents sustained by employees over the year, the number of lost-time days and the overall accident severity rate decreased by 43% and 30% respectively. Through promotion of the dynamic loss control program, the Corporation continually strives to improve its safety performance.

Construction Activities

The 40-room extension to the staff house, including dining and recreational facilities, was completed within budget. The facility began operation in July.

Four new houses were constructed in the townsite during the year under review. The project commenced in July and was completed in December, within the estimated budget. These additional houses will ameliorate the housing shortage for permanent staff.

Throughout the year, CF(L)Co representatives met with its customers to discuss improvements and additional options to the power system. Various projects were agreed upon, with the associated costs to be borne by the respective customer. These include:

(i) The installation, on behalf of Hydro-Québec, of a second microwave communications link from Montagnais to Churchill Falls. This work is scheduled for completion during 1993 at an estimated cost of $6 million. Another $2.5 million will pay for a 735-kilovolt reliability improvement plan, also scheduled for completion in 1993.

(ii) The installation by the Iron Ore Company of Canada of two 25-megavar capacitor banks at the Wabush terminal station. The project is scheduled for completion in 1991 at an estimated cost of $1 million.

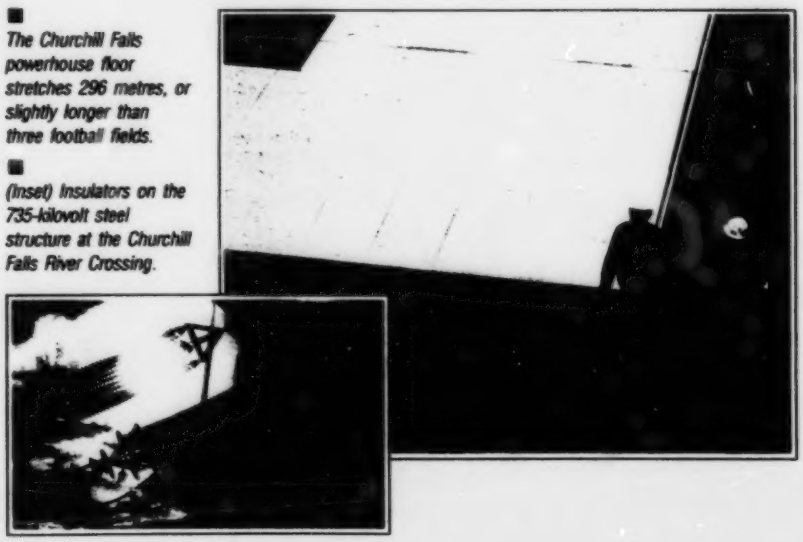
The People of Churchill Falls

Over half of the employees of CF(L)Co work in positions directly related to the production of electricity. Many others, working in a host of occupations at the townsite, also provide valuable contributions to the Corporation. Together, all these people and their families create an atmosphere of professionalism and camaraderie that is truly unique.

Planning Ahead

In the coming year, CF(L)Co plans several major projects to provide increased operational reliability. Two generators in the powerhouse will be rewedged. Gate Number 3 at the Lobstick Control Structure will be unwatered and inspected. Installation will continue on the supervisory control and data acquisition system (SCADA) at the powerhouse, in order to replace the now-outdated control system.

CF(L)Co continues its commitment to maintain its facilities in such manner as to ensure a high degree of operating reliability and anticipates another year of successful production in 1991.



The Churchill Falls powerhouse floor stretches 296 metres, or slightly longer than three football fields.

(Inset) Insulators on the 735-kilovolt steel structure at the Churchill Falls River Crossing.

Consolidated Financial Performance (Hydro and CF(L)Co)

Net Income

Hydro's consolidated net income for 1990 amounted to $21.7 million, a decrease of $2.2 million from 1989. This decrease in net income is primarily the result of a lower interest coverage which Hydro is permitted to earn as a return from its utility customer.

Revenue

Gross revenue for 1990 was $359.4 million compared with $324.4 million in 1989. This increase of $35.0 million is primarily due to the integration of PDD with Hydro effective January 1, 1990 and higher export sales volume from CF(L)Co. Sales volume to the utility customer in 1990 increased by 3.5% and when combined with a rate increase effective July 1, 1990 revenue increased by 6.6% or $10.9 million. Sales revenue and government subsidy for rural customers, when compared to sales to PDD in 1989, increased by $28.9 million in 1990. The volume of sales to industrial customers decreased by 22.7% and revenue decreased by $9.3 million. Export sales volume from CF(L)Co increased by 7.3% while revenue increased by 5.2% or $3.7 million.

Expenses

Total expenses for 1990 amounted to $329.0 million compared with $296.1 million in 1989, an increase of 11.1%.

The total cost of fuel and power purchased was $54.7 million in 1990, a decrease of $14.8 million from 1989. This decrease was primarily due to a reduction in the cost of Bunker "C" fuel offset in part by the cost of diesel fuel and woodchips which was incurred with the amalgamation of PDD. Operations and administration costs amounted to $91.4 million in 1990, an increase of $25.6 million from 1989. This increase of 38.9% is

Figure 1
CONSOLIDATED NET INCOME

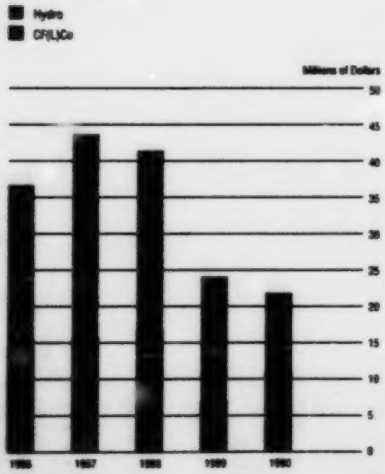


Figure 2
CONSOLIDATED REVENUE

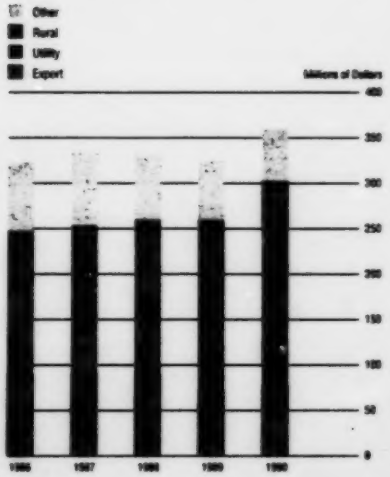
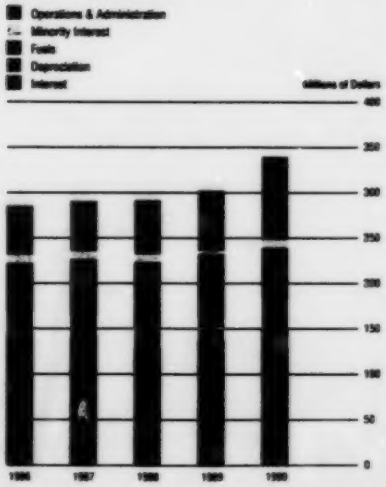


Figure 3
CONSOLIDATED EXPENSES



primarily due to the integration of PDD, higher maintenance costs and escalation of labour and other costs.

Depreciation expense amounted to $34.0 million in 1990, an increase of $7.8 million or 29.8% over 1989 because of the integration of PDD and additional assets placed in service in 1990.

Net interest expense amounted to $148.8 million in 1990 compared to $134.6 million in 1989. The increase of $14.2 million is primarily due to increased plant in service and the inclusion of interest on certain assets which was formerly recovered directly from PDD.

Capital Expenditures

Additions to property, plant and equipment in 1990 amounted to $78.5 million compared to $89.3 million in 1989. The 1990 additions involved completion of the Energy Control Centre as well as additions to transmission and distribution facilities.

CF(L)Co

As was the case in 1989, CF(L)Co's net income has a positive effect on Hydro's investment in that Corporation as Table A shows.

During 1990 CF(L)Co paid dividends of $4.2 million to Hydro and $1.5 million to Hydro-Québec. These compare with the 1989 dividend payments of $18.3 and $6.7 million respectively.

Segmented information for 1990 is detailed in Table B.

TABLE A	1990	1989
	($ millions)	
Share of earnings	17.0	12.5
Rental and Royalty	3.8	3.1
	20.8	15.6
Less: Interest on debt financing the investment	10.0	8.7
Net income effect	10.8	6.9

TABLE B	Hydro	CF(L)Co	Total
		($ millions)	
Revenue	277.3	80.6	357.9
Expenses			
Operations & administration	69.1	22.3	91.4
Fuels	54.3	—	54.3
Power purchased	3.0	—	3.0
Depreciation	19.4	13.4	32.8
Interest	120.6	18.0	138.6
	266.4	53.7	320.1
Net operating income	10.9	26.9	37.8
Interest on CF(L)Co acquisition & other dedicated costs	—	(7.4)	(7.4)
Minority interest	—	(8.7)	(8.7)
Net income to Hydro	10.9	10.8	21.7

Financial Performance of Newfoundland and Labrador Hydro

For approximately ten years prior to 1990, Hydro's financial performance continued to improve as its debt/equity ratio changed from 97/3 to 82/18. This financial performance was achieved because Hydro's regulatory authority, the Public Utilities Board, had continually recommended that Hydro be allowed to earn within an interest coverage range of 1.15 to 1.25.

In response to Hydro's rate referral in 1990 the PUB recommended that Hydro's debt/equity ratio should improve at a slower rate than had been the case previously and that Hydro should earn a specific interest coverage that is lower than the previously recommended range.

Hydro's net income was $21.7 million in 1990 compared with $23.9 million in 1989. Hydro's debt/equity ratio was 84/16 at December 31, 1990 compared with 82/18 in 1989. Figure 4 shows the debt/equity ratio of Hydro for the past five years. Hydro earned an overall interest coverage of 1.08 in 1990 compared with 1.14 in 1989. Figure 5 summarizes Hydro's interest coverage levels for the past five years.

The net book value of Hydro's assets in service during the past five years is shown in Figure 6.

Figure 4
DEBT / EQUITY RATIO

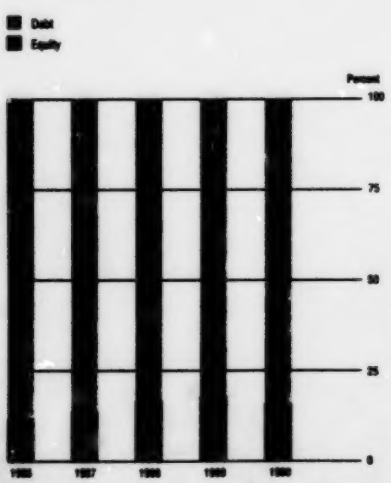


Figure 5
INTEREST COVERAGE

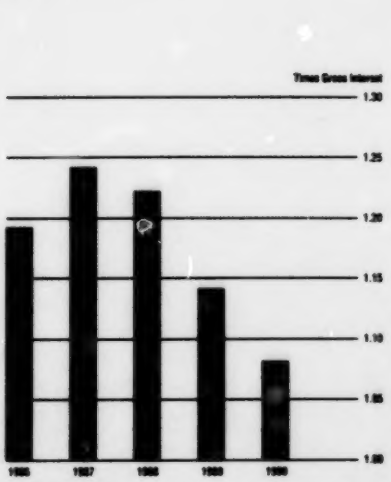
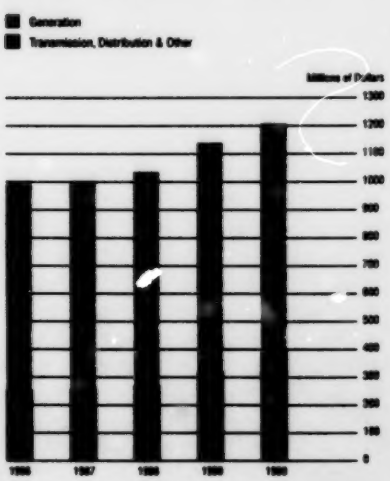


Figure 6
NET BOOK VALUE OF HYDRO'S ASSETS IN SERVICE



Financial Statements

1990

HYDRO

Management Report

The consolidated financial statements of Newfoundland and Labrador Hydro and all information in the Annual Report are the responsibility of Management and have been approved by the Board of Directors.

The financial statements have been prepared by Management in accordance with accounting principles generally accepted in Canada, applied on a basis consistent with that of the preceding year. The financial statements include some amounts that are based on best estimates and judgements.

To assist Management in the discharge of these responsibilities, a system of internal control is maintained which is designed to provide reasonable assurance at reasonable cost that its assets are safeguarded from loss or unauthorized use, that transactions are executed in accordance with Management's authorization, and that the financial records are reliable for preparing timely financial information. The system includes formal policies and procedures and an organizational structure that provides for appropriate delegation of authority and segregation of responsibilities. The Internal Audit Department independently evaluates the effectiveness of these internal controls on an ongoing basis, and reports its findings to Management and to the Audit Committee of the Board of Directors.

The Board of Directors carries out its responsibilities primarily through its Audit Committee which is comprised solely of outside directors. The Audit Committee reviews the annual consolidated financial statements and recommends their approval to the Board of Directors. The internal and external auditors have full and free access to the Audit Committee, with and without the presence of Management.

These financial statements have been examined by the external auditors, Peat Marwick Thorne, Chartered Accountants.

Cyril J. Abery,
Chairman & Chief Executive Officer

David W. Mercer,
President

R. Andrew Grant,
Vice-President, Finance and
Chief Financial Officer

Auditors' Report

The Lieutenant-Governor in Council
Province of Newfoundland

We have audited the consolidated balance sheet of Newfoundland and Labrador Hydro as at December 31, 1990 and the consolidated statements of income and retained earnings and changes in financial position for the year then ended. These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the company as at December 31, 1990 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles. As required by The Newfoundland and Labrador Hydro Act, 1975, we report that, in our opinion, these principles have been applied on a basis consistent with that of the preceding year.

St. John's, Newfoundland
Canada
March 8, 1991

Peat Marwick Thorne

Chartered Accountants

HYDRO

Consolidated Balance Sheet

December 31, 1990, with comparative figures for 1989

	1990 ($000)	1989 ($000)
Assets		
Fixed assets (Note 2)		
Property, plant and equipment	**2,083,000**	2,039,852
Current assets		
Cash and term deposits	**71,189**	53,875
Receivables	**56,918**	52,778
Fuel and supplies at average cost	**38,037**	32,032
Prepaid expenses	**3,291**	3,337
	169,435	142,022
Long-term receivable (Note 3)	**2,939**	7,349
Investment in Twin Falls Power Corporation Limited (Note 4)	**2,986**	3,550
Lower Churchill option (Note 5)	**5,200**	5,200
Deferred charges (Note 6)	**36,780**	54,053
	2,302,340	2,252,026
Liabilities and Shareholder's Equity		
Long-term debt (Notes 8 and 9)	**1,397,574**	1,443,078
Current liabilities		
Accounts payable and accrued liabilities	**30,279**	40,456
Accrued interest	**31,332**	32,204
Long-term debt due within one year	**40,085**	52,409
Promissory notes (Note 9)	**157,355**	47,000
	259,051	172,069
Rate Stabilization Plan (Note 7)	**—**	25,469
Deferred revenue	**20,860**	11,938
Minority interest in Churchill Falls (Labrador) Corporation Limited	**108,940**	101,690
Minority interest in Lower Churchill Development Corporation Limited	**14,750**	14,750
Shareholder's equity		
Share capital		
Common shares of par value of $1 each. Authorized 25,000,000 shares; issued 22,503,942 shares.	**22,504**	22,504
Contributed capital (Note 5)		
Lower Churchill Development	**15,400**	15,400
Muskrat Falls Project	**2,165**	2,165
Gull Island Project	**100,000**	100,000
Retained earnings	**361,096**	342,963
	501,165	483,032
	2,302,340	2,252,026

(See accompanying notes)

On Behalf of the Board

Cyril J. Abery
Director

Janet Gardner
Director

HYDRO

Consolidated Statement of Income and Retained Earnings

For the year ended December 31, 1990, with comparative figures for 1989

	1990 ($000)	1989 ($000)
Revenue		
Energy sales	353,651	319,395
Rentals and royalties	4,522	3,821
Other	1,263	1,238
	359,436	324,454
Expenses		
Operations and administration (Note 11)	91,410	65,808
Fuels	54,304	69,471
Power purchased	422	46
Depreciation	34,041	26,221
Interest and guarantee fee (Note 10)	148,837	134,585
	329,014	296,131
Net income from operations	30,422	28,323
Minority interest	8,747	4,381
Net income for the year	21,675	23,942
Retained earnings, beginning of year	342,963	319,021
Amalgamation costs (Note 7)	(3,542)	—
Retained earnings, end of year	361,096	342,963

(See accompanying notes)

HYDRO

Consolidated Statement of Changes in Financial Position

For the year ended December 31, 1990, with comparative figures for 1989

	1990 ($000)	1989 ($000)
Cash provided by (used in)		
Operations		
Net income from operations	30,422	28,323
Add (deduct) items not involving a cash flow		
Depreciation	34,041	26,221
Amortization of deferred exchange loss	3,769	4,978
Other amortization	3,014	2,882
Rate stabilization plan (Note 7)	(16,528)	6,301
Other	1,134	(212)
	55,852	68,493
Miscellaneous	—	2,930
Reduction in long-term receivable	4,410	4,410
Increase in deferred revenue	8,922	11,938
Net change in other non-cash working capital balances related to operations	(18,383)	(53)
	50,801	87,718
Financing		
Long-term debt issued	7,514	125,000
Reduction in long-term debt	(67,668)	(58,187)
Dividends paid by a subsidiary to a minority interest	(1,497)	(6,738)
Increase (decrease) in promissory notes	110,355	(37,855)
	48,704	22,220
Investments		
Additions to deferred charges	(1,657)	(11,433)
Additions to property, plant and equipment	(78,509)	(89,265)
Dividends received from Twin Falls Power Corporation Limited	750	1,076
Net change in payables and receivables relating to investment activities	(2,775)	(3,371)
	(82,191)	(102,993)
Net increase in cash	17,314	6,945
Cash position at beginning of year	53,875	46,930
Cash position at end of year	71,189	53,875

(See accompanying notes)

Notes to Consolidated Financial Statements

December 31, 1990

Newfoundland and Labrador Hydro ("Hydro") is incorporated under a special act of the Legislature of the Province of Newfoundland (the "Province") as a Crown corporation and its principal activity is the development, generation and sale of electric power. Hydro and its subsidiary companies are exempt from paying income taxes under Section 149 (1) (d) of the Income Tax Act.

1. Summary of Significant Accounting Policies

The consoliated financial statements have been prepared in conformity with generally accepted accounting principles as established in Canada. In order to match revenues and costs and to conform with recommendations of the Board of Commissioners of Public Utilities ("PUB"), Hydro's accounting for foreign exchange differs from that recommended by the Canadian Institute of Chartered Accountants.

Rates and Regulations *(excluding sales by subsidiaries)*

The rates charged by Hydro, excluding sales by subsidiaries, are governed by the Electrical Power Control Act (the "Act"). Under the Act, Hydro is required to charge rates to all its customers designed "to recover the cost of service provided by it and a margin of profit sufficient to achieve and maintain a sound financial position so that it is able to achieve and maintain a sound credit rating in the financial markets of the world".

As of January 1, 1990, Hydro assumed responsibility for directly supplying electricity to rural customers previously served by the Board of Trustees of the Power Distribution District of Newfoundland and Labrador ("PDD"), a former retail customer of Hydro (see Note 7). The rates charged rural customers do not recover full costs but Hydro recovers the resulting deficit from other customers.

There are presently four long-term contracts with industrial customers which were entered into prior to the coming into being of the Act and which do not allow Hydro to recover costs plus a margin of profit and therefore require payments from the Province to Hydro in order to ensure that Hydro meets the requirements of the Act. These payments were $1,997,000 for the year ended December 31, 1990 (1989 $9,692,000).

Rates proposed for rural and retail customers from which approximately 81.3% of Hydro's revenue is derived (1989 75.3%) are subject to public hearings, following which the PUB recommends rates. If the Lieutenant-Governor in Council does not change the rates recommended by the PUB within 15 days, the recommended rates become effective. Should the Lieutenant-Governor in Council approve rates which are lower than those recommended by the PUB, the Act requires the Province to enter into financial and other arrangements as may be necessary to enable Hydro to conform to the Act quoted above. Rates, compatible with the Act, charged to industrial customers are set by the Board of Directors of Hydro.

Principles of Consolidation

The consolidated balance sheet includes the accounts of Hydro and those of its subsidiary companies, Churchill Falls (Labrador) Corporation Limited ("CF(L)Co"), (65.8% owned), Gull Island Power Company Limited ("GIPCo"), (100% owned) and Lower Churchill Development Corporation Limited ("LCDC"), (51% owned).

CF(L)Co is incorporated under the laws of Canada and has completed and commissioned a hydroelectric generating plant and related transmission facilities situated in Labrador and having a rated capacity of 5,428,000 kilowatts ("kW") (the "CF(L)Co Project"). A power contract with Hydro-Québec, dated May 12, 1969 ("Power Contract") provides for the sale of substantially all the energy from the CF(L)Co Project until 2041.

The cost of the investment in CF(L)Co exceeds the equity in the book value of the net assets acquired by $77,148,000. This amount is assigned to property, plant and equipment and is being written off on a straight-line basis at the rate of 1½% per annum. As at December 31, 1990 $18,515,000 (1989 $17,358,000) had been written off.

Under the terms and conditions of the Churchill Falls (Labrador) Corporation (Lease) Act, 1961, (the "Lease"), CF(L)Co must pay rentals and royalties to the Province annually. These rentals and royalties have been assigned to Hydro.

A portion of Hydro's shareholding in CF(L)Co is desposited in a voting trust pursuant to an agreement with Hydro-Québec.

GIPCo is incorporated under the laws of Canada. Its objective was to develop the hydroelectric potential at Gull Island on the Lower Churchill River in Labrador, and construct a direct current transmission system from Labrador to the island of Newfoundland (the "Gull Island Project"), (see Note 5).

LCDC is incorporated under the laws of Newfoundland and was established with the objective of developing all or part of the hydroelectric potential of the Lower Churchill River (the "Lower Churchill Development"), (see Note 5).

Although CF(L)Co owns voting control (66⅔%) of Twin Falls Power Corporation Limited ("TWINCo"), its equity interest is 33⅓% and as the principal assets and credit resources of TWINCo cannot be transferred to CF(L)Co, consolidation is not considered appropriate and the investment is carried on an equity basis.

Fixed Assets and Depreciation

Expenditures for additions, improvements and renewals are capitalized and normal expenditures for maintenance and repairs are charged to operations.

Hydro, GIPCo and LCDC

Plant under construction includes the costs incurred in preliminary feasibility studies, engineering and construction of new generation, transmission and distribution facilities. Interest is charged to plant under construction at rates equivalent to the weighted average cost of the most recent funds borrowed. The average rate for the year ended December 31, 1990 was 12.74% (1989 11.07%).

Depreciation is calculated on hydroelectric generating plant and on transmission plant in service on the sinking fund method using interest factors ranging from 5.25% to 15.79%. Depreciation on other plant in service is calculated on the straight-line method. These methods are designed to fully amortize the cost of the facilities, after deducting contributions in aid of construction, over their estimated service lives.

Estimated service lives of the major assets are as follows:

Generation	
Hydroelectric	50, 75 and 100 years
Thermal electric	25 and 30 years
Diesel electric	20 years
Transmission	
Lines	40 and 50 years
Switching stations	40 years
Distribution System	30 years

CF(L)Co

Depreciation is provided for at a rate of 1½% per annum on a straight-line basis.

Deferred Charges

Debt discount and financing expenses

These costs are, in general, amortized on a straight-line basis over the lives of the respective debt issues.

Deferred foreign exchange loss

CF(L)Co's unrealized foreign exchange loss, net of accumulated charges to income, is amortized over the remaining life of the related long-term debt.

In 1985, the PUB accepted the inclusion by Hydro of realized foreign exchange losses in rates charged to customers commencing in 1986. Any such loss not recovered due to the operation of the rate setting process is deferred to the time of the next rate hearing for inclusion in the new rates set at that time.

Deferral of major repairs

Subject to the PUB's approval, costs of major repairs of an extraordinary and non-recurring nature are amortized to income over periods ranging from five to ten years commencing in the year in which they are incurred. The PUB has accepted the inclusion of these charges in determining Hydro's regulated rates.

Feasibility studies and other

These costs are amortized on a straight-line basis over a five year period.

Rate Stablization Plan

On January 1, 1986, Hydro, having received the concurrence of the PUB, implemented a rate stabilization plan which provides for the deferral of cost variances resulting from changes in fuel prices, levels of precipitation and load. The balance in the plan on each July 1 is amortized over a three year period. Adjustments required in retail rates to cover the amortization of the balance in the plan are automatic on July 1 of each year. Similar adjustments required in industrial rates are automatic on January 1 of each year.

Revenue Recognition

Revenue is recorded on the basis of power deliveries made.

Deferred revenue represents amounts billed under the Power Contract in excess of amounts related to energy delivered. Amounts related to energy delivered in excess of the base amount, as defined by the Power Contract, represent unbilled receivables.

Differences between the amounts related to energy delivered and the base amounts are determined annually and are subject to interest. These differences are also subject to periodic review and adjustment.

Foreign Currencies

Foreign currency transactions are translated into their Canadian dollar equivalent as follows:

(a) At the transaction date, each asset, liability, revenue or expense is translated using exchange rates in effect at that date.

(b) At each balance sheet date monetary assets and liabilities, except for long-term debt and its related current portion, are translated using exchange rates at that date.

(i) In the case of Hydro, long-term debt, including current portion, is translated in accordance with rate making practices, at exchange rates prevailing when the debt was incurred. Therefore, no recognition is given in the accounts to unrealized gains or losses.

(ii) Under the provisions of the Power Contract CF(L)Co's exposure for a foreign exchange loss is limited. CF(L)Co recovers a portion of the difference between actual exchange rates prevailing at the settlement date of its First Mortgage Bonds 7¾% Series A and a Weighted Average Exchange Rate as defined in the Power Contract.

The unrealized foreign exchange loss not recoverable under the Power Contract has been deferred and is being amortized to operations over the remaining life of the debt.

(c) Recorded gains or losses arising on foreign currencies are included with interest in the statement of income.

2. Fixed Assets

	1990 ($000)	1989 ($000)
Hydro		
Property, plant and equipment, at cost	1,429,772	1,341,633
Less contributions in aid of construction	84,912	85,154
	1,344,860	1,256,479
Less accumulated depreciation	136,490	117,457
	1,208,370	1,139,022
Plant under construction	16,492	31,531
	1,224,862	1,170,553
GIPCo		
Gull Island Project, at cost (Note 5)	97,812	98,079
CF(L)Co (a)		
Property, plant and equipment, at cost	975,635	972,257
Less accumulated depreciation	240,071	225,724
	735,564	746,533
LCDC		
Capital studies (Note 5)	24,762	24,687
	2,083,000	2,039,852

(a) CF(L)Co assets are pledged as security for its long-term debt.

3. Long-Term Receivable

The long-term receivable from Hydro-Québec bears interest at 7% per annum and is receivable over the next two years. The current portion of $4,410,000 (1989 $4,410,000) has been reclassified to current assets.

4. Investment in Twin Falls Power Corporation Limited

	1990 ($000)	1989 ($000)
Shares, at cost	2,500	2,500
Equity in retained earnings at beginning of year	1,050	1,186
Equity in net income for the year	186	940
Dividends for the year	(750)	(1,076)
	2,986	3,550

5. Lower Churchill Option

LCDC was incorporated in 1978 pursuant to the provisions of an agreement (the "Principal Agreement"), between the Province and the Government of Canada. The Province and the Government of Canada owns equity interests of 51% and 49% of LCDC, respectively. The Principal Agreement provides that future issues of Class A common shares shall preserve, as nearly as possible, this ratio of beneficial ownership. Hydro is the designate for the Province's shareholding in LCDC.

Upon agreement to continue with the Lower Churchill Development, GIPCo's assets and the hydroelectric development rights to the Lower Churchill River, (the "Water Rights"), will be acquired by LCDC pursuant to the provisions of an agreement between LCDC and the Province, (the "Option Agreement"). The purchase price in respect of GIPCo's assets will be a maximum of $100,000,000 less $5,200,000 representing the value assigned to 520 Class A common shares of LCDC issued pursuant to the signing of the Option Agreement. As consideration for GIPCo's assets, LCDC will issue a 10% Convertible Demand Debenture in the amount of $94,800,000. LCDC will issue 3,000 Class B common shares, without nominal or par value, to the Province in consideration of the Water Rights and the Province will transfer such shares to Hydro. The Option Agreement expires November 24, 1991 and it is not anticipated that there will be any loss upon sale of GIPCo's assets to LCDC.

Hydro holds 1,540 Class A common shares of LCDC which have a stated value of $10,000 each. 520 shares were acquired in 1979 pursuant to signing of the Option Agreement and 510 shares were acquired in each of the years 1980 and 1981, by way of capital contributions from the Province.

In 1980, the LCDC Board of Directors issued a report to the shareholders recommending development of the Muskrat Falls site and the transmission of the power to the island of Newfoundland. Engineering studies for the transmission system have been completed but a final commitment to the project awaits shareholders' approval.

6. Deferred Charges

	1990 ($000)	1989 ($000)
Debt discount	12,147	13,310
Deferred foreign exchange loss	23,299	27,310
Major repair costs	153	241
Feasibility studies and other	3,181	3,045
Power Distribution District recoverable costs (Note 7)	—	10,147
	38,780	54,053

7. Power Distribution District

Prior to January 1, 1990 Hydro administered PDD, a statutory corporation of the Province. PDD was responsible for the provision of electricity to its customers in certain remote rural communities. Hydro financed the capital requirements of PDD, managed PDD's operating responsibilities and was fully reimbursed for all costs associated therewith.

As a result of legislation passed by the Province in 1989, PDD ceased to exist as of December 31, 1989. Pursuant to the legislation all long-term debt of PDD amounting to $2,325,000 was assumed by Hydro on January 1, 1990. As a result of the recommendations by the PUB during the 1990 rate hearing, deferred PDD costs at December 31, 1989 of $8,941,000 were charged to the rate stabilization plan. The balance of the deferred PDD costs at December 31, 1989 and the assumption of long-term debt were recorded as amalgamation costs and charged to retained earnings.

Also, the Province announced in its June 6th, 1989 Budget that it intended to phase out the subsidy for the operation of PDD over a three year period commencing in 1989 and that Hydro is to recover these amounts from its retail and industrial customers.

8. Long-Term Debt

	1990			1989
	Hydro ($000)	CF(L)Co ($000)	Total ($000)	Total ($000)
Summary of long-term debt				
Bonds, notes and debentures	874,837	443,084	1,317,921	1,369,434
Other	79,653	—	79,653	73,644
	954,490	443,084	1,397,574	1,443,078

At December 31, 1990 it is estimated that required repayments of long-term debt over the next five years will be as follows:

	Bond, Notes & Debentures	Loans	Capitalized Lease	Total
	($000)	($000)	($000)	($000)
1991	37,015	2,883	187	40,085
1992	193,497	3,084	209	196,790
1993	37,587	3,298	233	41,118
1994	39,414	3,528	260	43,202
1995	45,001	3,775	290	49,066

Details of long-term debt are as follows

Hydro

Bonds, notes and debentures, redeemable at the option of Hydro at various times and at various rates, none of which exceeds 102¼% of par.

Series	Interest Rate %	Year of Issue	Year of Maturity	Foreign Funds		1990	1989	
					($000)	($000)	($000)	
	5¼	1965	1990			—	7,468	(a)
	7¾	1968	1993	U.S.	25,000	26,773	26,773	(b)
	9	1969	1994	U.S.	7,800	8,385	8,869	
	8⅛	1972	1992			15,000	15,000	(b)
	8⅞	1974	1999			20,000	20,000	(b)
	10¾	1975	1995			25,000	25,000	(b)
	4¾	1975	1992	S.Fr.	75,000	28,286	28,286	
	10¼	1976	2001			30,000	30,000	(b)
	10	1977	2002			30,000	30,000	(b)
J	10	1977	2002			35,000	35,000	(b)
K	10¼	1978	2001			35,000	35,000	(b)
L	10	1978	2003			40,000	40,000	(b)
	9⅞	1979	1994	U.S.	32,000	36,990	47,394	
M	11¼	1979	1999			110,000	110,000	(b)
N	13⅜	1981	2001			75,000	75,000	(b)
	15⅛	1982	1992	U.S.	100,000	124,072	124,072	
	7	1985	1995	¥	7,000,000	37,349	37,349	
S	9⅞	1986	1996			100,000	100,000	
T	10½	1987	1997			100,000	100,000	(c)
U	9⅞	1988	1998			100,000	100,000	(d)
V	10½	1989	2014			125,000	125,000	(b)
						1,101,855	1,120,211	
	Less sinking funds					206,708	176,059	
						895,147	944,152	
	Less payments due within one year					20,310	34,502	
						874,837	909,650	

(a) Secured by an assignment of amounts receivable under a power contract.

(b) A sinking fund has been established for this issue.

(c) The holder of any debenture has the right to elect that such debenture shall mature on December 15, 1992 and Hydro has the right to increase the rate of interest on all debentures of this issue from that date to December 15, 1997.

(d) Interest will increase to 10⅛% on August 2, 1993. The holder of any debenture has the right to elect that such debenture shall mature on August 2, 1993 and Hydro has the right to further increase the rate of interest on all debentures of this issue from that date to August 2, 1998.

Based on exchange rates in effect at December 31, 1990, the approximate amount required to discharge foreign currency debt obligations recorded in the accounts in Canadian dollars as $261,855,000 would be $319,827,000 (1989 as $280,211,000 would be $322,531,000).

Other long-term debt

Details of other long-term debt are as follows

	Years of Maturity	Interest Rate %	1990	1989
			($000)	($000)
Government of Canada Loans	2003 to 2014	5¼ to 8½	75,697	76,186
Capital lease obligations for computerized energy management system	2005	11⅜₁₀	7,026	—
			82,723	76,186
Less payments due within one year			3,070	2,542
			79,653	73,644

CF(L)Co

	1990	1989
	($000)	($000)
First Mortgage Bonds		
7¾% Series A due December 15, 2007 (U.S. $325,789,000)	346,998	359,553
7⅞% Series B due December 15, 2007	32,717	33,888
General Mortgage Bonds		
7½% due three years after latest maturity of any First Mortgage Bonds	80,074	81,708
	459,789	475,149
Less payments due within one year	16,705	15,365
	443,084	459,784

The First Mortgage Bonds, Series A and B, are repayable in fixed semi-annual and in contingent annual sinking fund instalments which commenced in June 1978.

The Deed of Trust and Mortgage securing the General Mortgage Bonds provides for semi-annual sinking fund payments which commenced in June 1980. Each payment is equal to 1% of the aggregate principal amount outstanding on January 1, preceding each payment date. The General Mortgage Bonds are subordinate to the First Mortgage Bonds.

Under the terms of long-term debt instruments, CF(L)Co may pay cash dividends only out of earnings, as defined, accumulated from September 1, 1976.

9. Guarantees by the Province

The Province has unconditionally guaranteed the principal and interest on promissory notes and long-term debt, except for the Swiss franc loan and the debt of CF(L)Co.

The Province charges Hydro a guarantee fee of one percent annually on its outstanding guaranteed long-term debt.

10. Interest Expense and Guarantee Fee

	1990 ($000)	1989 ($000)
Gross interest		
Long-term debt	169,515	166,613
Promissory notes	13,038	10,042
	182,553	176,655
Amortization of debt discount and financing expense	1,682	1,838
Exchange loss on sinking fund transactions and retirement of debt	4,897	4,233
	189,132	182,726
Less		
Recovered from		
Hydro-Québec (a)	13,571	14,643
PDD	—	9,980
Interest during construction	5,013	4,259
Interest earned	31,631	28,340
Net interest expense	138,917	125,504
Debt guarantee fee	9,920	9,081
Net interest and guarantee fee	148,837	134,585

(a) Under the terms of the Power Contract, CF(L)Co recovers the difference between interest calculated at the rates prescribed in the Power Contract and interest paid on its long-term debt.

Also, CF(L)Co can require Hydro-Québec to make additional advances, against the issue of units of Subordinate Debentures and shares of common stock, to service its debt and to cover its expenses if funds are not otherwise available.

11. Commitments and Contingent Liabilities

(a) Under the terms of a sublease with TWINCo expiring on December 31, 2014, CF(L)Co is required to deliver to TWINCo, at an agreed price, horsepower equivalent to the installed horsepower of the TWINCo plant and to maintain TWINCo's plant and equipment.

(b) Hydro has received claims instituted by various companies with respect to construction costs, outages and plant shutdowns. The aggregate of these claims, less any amounts that have been provided for in Hydro's financial statements is approximately $3,603,000 (1989 $2,012,000). The final resolution of these matters is currently under negotiation.

(c) All employees are covered by the Province's Public Service Pension Plan to which contributions are made equally by employers and employees. During the year the two Churchill Falls private pension plans, which were in existence prior to 1990, were wound up and approximately $5,900,000 of surplus funds were returned to the company and credited against operating expenses.

(d) Outstanding commitments for capital projects total approximately $20,569,000 at December 31, 1990 (1989 $25,730,000).

HYDRO

Financial Statistics

(in millions of dollars)
Years ended December 31

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Operating Results:										
Revenue										
Energy sales	**353.6**	319.4	324.9	325.4	314.0	323.7	268.9	236.1	225.0	195.6
Rentals and royalties	**4.5**	3.8	5.6	5.7	5.9	5.4	8.5	4.9	5.3	5.9
Other	**1.2**	1.2	1.6	1.1	0.9	1.5	*37.0	1.8	2.3	1.8
	359.3	324.4	332.1	332.2	320.8	330.6	314.4	242.8	232.6	203.3
Expenses										
Operations & administration	**91.4**	65.8	59.4	54.9	54.2	51.1	52.7	47.4	48.1	40.4
Fuels	**54.7**	69.5	71.2	61.8	53.6	95.1	49.4	31.7	40.2	17.5
Depreciation	**34.0**	26.2	24.3	22.9	23.0	22.9	22.3	22.2	22.4	22.1
Interest	**148.8**	134.6	127.2	140.1	144.2	121.4	117.0	115.4	91.2	91.7
	328.9	296.1	282.1	279.7	275.0	290.5	241.4	216.7	201.9	171.7
Net income before minority interest	**30.4**	28.3	50.0	52.5	45.8	40.1	73.0	26.1	30.7	31.6
Minority interest	**8.7**	4.4	8.8	9.1	9.3	11.0	22.1	9.7	10.6	13.0
Net income	**21.7**	23.9	41.2	43.4	36.5	29.1	50.9	16.4	20.1	18.6
Contributions to Net Income										
Hydro Corporate	**10.9**	17.0	24.5	27.8	22.1	15.0	19.7	14.3	16.5	10.8
CF(L) Co	**10.8**	6.9	16.7	15.6	14.4	14.1	31.2	2.1	3.6	7.8
Financial Position:										
Total current assets	**169.4**	142.0	133.9	138.6	126.7	140.4	135.4	112.3	183.4	144.3
Total current liabilities	**259.1**	172.1	199.0	263.6	173.0	224.2	168.5	147.0	121.2	108.2
Net working capital	**(89.7)**	(30.1)	(65.1)	(125.0)	(46.3)	(83.8)	(33.1)	(34.7)	62.2	36.1
Property, plant & equipment	**2,459.6**	2,382.0	2,295.3	2,203.0	2,167.1	2,141.8	2,108.2	2,011.9	1,864.1	1,712.4
Accumulated depreciation	**376.6**	342.2	314.8	289.6	265.3	241.5	218.4	197.5	174.8	152.4
Property, plant & equipment net	**2,083.0**	2,039.8	1,980.5	1,913.4	1,901.8	1,900.3	1,889.8	1,814.4	1,689.3	1,560.0
Other assets	**49.9**	70.2	71.1	94.5	66.8	63.7	77.7	35.8	35.2	34.1
Long-term debt	**1,397.5**	1,443.1	1,389.4	1,346.7	1,422.7	1,411.4	1,474.3	1,427.7	1,425.5	1,296.8
Other liabilities	**144.5**	153.8	138.0	118.3	125.1	130.8	151.2	129.8	119.0	111.1
Shareholder's equity	**501.2**	483.0	459.1	417.9	374.5	338.0	308.9	258.0	242.2	222.3
Employees at year end:										
Permanent	**1,261**	1,215	1,219	1,220	1,201	1,196	1,197	1,213	1,232	1,205
Temporary	**185**	164	215	135	132	113	107	93	95	126
Total	**1,446**	1,379	1,434	1,355	1,333	1,309	1,304	1,306	1,327	1,331

(Includes unusual item relating to a sale of power adjustment of $35.3)*

HYDRO

Operating Statistics

Years ended December 31

	1990	1989	1988	1987	1986	1985	1984	1983	1982	1981
Installed generating capacity at end of period (rated kW in thousands)										
CF(L)Co	**5,428**	5,428	5,428	5,428	5,403	5,403	5,225	5,225	5,225	5,225
TWINCo	**225**	225	225	225	225	225	225	225	225	225
Hydro — Hydraulic	**899**	899	891	891	891	891	764	764	680	680
— Thermal	**691**	688	659	637	638	637	637	637	638	636
Total	**7,243**	7,240	7,203	7,181	7,157	7,156	6,851	6,851	6,768	6,766
Electric energy generated, net of station services (kW.h in millions)										
CF(L)Co	**29,174**	27,455	33,899	33,308	33,721	34,777	38,910	33,819	38,242	38,958
Hydro — Hydraulic	**3,761**	3,787	4,154	3,063	3,898	3,449	4,086	3,912	3,134	3,387
— Thermal	**1,854**	2,029	1,412	2,245	1,255	1,725	757	575	1,121	414
— Rural	**83**	—	—	—	—	—	—	—	—	—
Total Available for Sale	**34,872**	33,271	39,465	38,616	38,874	39,951	43,753	38,306	42,497	42,759
Electric energy sales (kW.h in millions)										
CF(L)Co — Export	**26,131**	24,343	30,702	30,367	30,666	31,833	35,989	31,188	35,715	35,881
Hydro — Utility	**4,055**	4,402	4,018	3,755	3,590	3,536	3,246	3,033	2,992	2,724
— Rural	**554**	—	—	—	—	—	—	—	—	—
— Industrial	**1,502**	1,932	2,054	2,058	2,059	1,975	1,856	1,783	1,628	1,424
Total	**32,242**	30,677	36,774	36,180	36,315	37,344	41,091	36,004	40,335	40,029
Average sales revenue (cents per kW.h)										
CF(L) Co — Export	**0.29**	0.31	0.29	0.29	0.29	0.29	0.26	0.29	0.26	0.27
Hydro — Utility	**4.34**	4.02	4.23	4.33	4.36	4.45	3.63	3.12	2.98	2.42
— Rural	**8.98**	—	—	—	—	—	—	—	—	—
— Industrial	**3.42**	3.14	3.22	3.50	3.28	3.75	3.02	2.89	2.60	2.22
Transmission Lines (kilometres)										
CF(L) Co — 735-kV	**608**	608	608	608	608	608	608	608	608	608
— 230-kV	**431**	431	431	431	431	431	431	431	431	431
Hydro — 230-kV	**1,531**	1,531	1,531	1,531	1,531	1,531	1,531	1,408	1,353	1,326
— 138-kV	**1,353**	1,073	1,073	1,039	916	916	916	916	916	845
— 69-kV	**614**	622	558	539	539	539	539	539	455	443
Total	**4,537**	4,265	4,201	4,148	4,025	4,025	4,025	3,902	3,763	3,653
Peak demand (kW in thousands)										
CF(L)Co System	**5,622**	5,620	5,622	5,765	5,203	5,614	5,530	5,562	5,685	5,680
Hydro System	**1,316**	1,230	1,232	1,065	1,084	1,009	1,013	1,040	881	834

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Newfoundland and Labrador Hydro

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